

Bemiss (J. H.)

A FEW  
CASES OF LEPROSY.

BY

J. H. BEMISS, M. D.,

LAHAINA, MAUI, H. I.



[Reprinted from the April Number of the New Orleans Medical and Surgical Journal.]

NEW ORLEANS:  
L. GRAHAM, STEAM BOOK PRINTER, 127 GRAVIER STREET.  
1880.





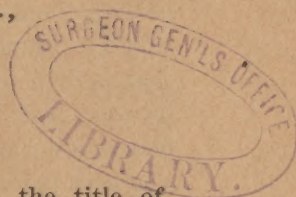
A FEW  
CASES OF LEPROSY.

BY

J. H. BEMISS, M. D.,

*Lahaina, Maui, H. I.*

---



“Leprosy in the Hawaiian Islands” has been the title of several papers published from time to time in the United States. That of my friend and associate in practice, Dr. F. H. Enders, deals with the most interesting questions, and will be of value to those who may be able to read it in the Transactions of the International Medical Congress of 1876. My purpose is to present a few cases whose histories were either taken by myself, or obtained from Dr. Enders, or elsewhere, calling attention to some points which may serve to add interest to this paper.

Statistics as to the time and manner of introduction of leprosy into these Islands, are wanting. The period between 1825 and 1830 is supposed to approximate to the correct time of importation, though the evidence to that effect is very indefinite. Rev. W. P. Alexander who came here in 1833, says, the first case he met with personally was that of a native Hawaiian in about 1838, living in a very isolated locality on this island (Maui), but he had heard several years before that a chiefess in Lahaina—also on Maui—was affected with the

disease. The first case on the islands was said to have been that of a chinaman on Oahu, the island upon which Honolulu is situated.

Of course the manner of introduction is just as uncertain as the time. The means for importing it, however, have been unlimited. During the height of the whale hunting business, that is, during the first half of the present century, these islands were the great resort for the whaling fleets of the Pacific, as many as a hundred sail often being in the harbors of Honolulu, Oahu; or Lahaina, Maui; at one time. These vessels in addition to bringing sailors from all parts of the world, frequently shipped native crews, who in their cruises were brought into contact with all nations along the Pacific, and afterwards returned here to spread such diseases as they might have contracted. But before whalers ever touched at these islands, the natives are said to have occasionally gone from island to island in the Pacific exchanging their diseases, as well as their commodities, which latter, however, were probably very limited. It may be then that the disease was present here in a dormant state long before it became generally known—at least to foreigners. The old disease, “mai alii—chief’s disease”—is generally supposed to have been Elephantiasis Arabum, or else the result of the high living, in which the chiefs indulged. Some, however, have thought it not too much to suppose some of the cases to have been leprosy.

The natives call leprosy “mai pake,” “chinese disease,” the tradition among them being that the “heathen Chinese” brought it with them. But the first lot of Chinamen did not come here until quite a number of years after leprosy became known, and this charge seems the more unwarrantable when we consider that of the whole population at the leper asylum there are not over six Chinamen.

After its introduction it seems to have spread quite slowly until the latter part of the ten years, 1850–1860. It then became so plentiful that the government took alarm and began to institute measures looking toward the prevention of its spread; one of its acts being the establishment of the Leper Asylum on Molokai, and the forcible transfer of pronounced



cases to that place. The census of 1878 (December 21st), showed the number of lepers at the Asylum Kalawao, at that date to have been 806; since then quite a number have been added, though there are still many at large. There have been admitted to Kalawao certainly not less than 2000 persons from 1866 to date; of which number upwards of 750 are still alive. The total native population, excluding all foreigners and those born of foreign parents, is 44,088 (census of 1878), quite a small number to furnish so much leprosy. The large majority of these are full blood natives or half breeds, there being two whites,—one American, the other English, and less than a half dozen Chinamen.

There are present here, the two forms, tubercular and anæsthetic. This division is based upon the predominance of one or the other of the two most important symptoms. In actual observation the disease does not always admit of such strict classification, but generally shows the two forms combined in greater or less pathologic preponderance. It may start as purely tubercular or purely anæsthetic, but does not often preserve a single type throughout its course; in the one case anæsthesia, in the other tubercles making their appearance in due time. As to a third variety, macular, my observation does not warrant my stating any such class. True, maculæ of one sort or another are common enough, but these cases already present one or the other of the two forms generally recognized. I have seen but one case in which I was not easily able to observe tubercles or anæsthesia well marked.

This man had several large, light and slightly raised maculæ upon his body, as the only main symptom of the disease, but these were anæsthetic, and there was a slight enlargement of the alæ nasi due to infiltration, one of the phenomena of incipient tubercular leprosy.\*

The tubercular variety is characterized by infiltration and

---

\*After having prepared this for the mail, I was upon Molokai on professional business, and there saw a case more purely macular than the above. The child a girl ten years old, presented upon her face especially, but also elsewhere upon her body, large black maculæ, slightly raised above the surface and producing a very disastrous effect upon her appearance. She was so young, that it may be she did not understand my questions; at all events, neither by questions nor close examination could I obtain any evidence of anæsthesia. Scattered from her left eye brow to her hand were not less than six small tubercles, on her right hand there were about half as many.

subsequent hypertrophy of the skin, especially where there is much loose tissue, such as the lobes of the ears, *alæ nasi* and face generally. Later on there is deposited in the skin of the face, hands, arms, &c., cheesy masses of the size of a pea or a little larger. These tubercles are prone to break down and leave deep indolent sores, which heal, however, after a time, but with strongly marked cicatrices. Mucous membranes, just as the external skin, are liable to the above morbid changes. They may become infiltrated and hypertrophied, or tubercles may appear in their substance and undergo ulceration. When such changes occur in the larynx an alteration of the voice is the result. In breaking down, they produce a most offensive fetor of the breath. The same changes occurring in the mucous membrane of the intestines are in a certain proportion of cases the cause of the diarrhœa which is so common, and so often fatal. But in many instances diarrhœa is only one of the many intercurrent affections due to a vitiated state of the system. In cases primarily anæsthetic, I have on several occasions first observed tubercles upon the mucous membrane of the posterior part of the tongue and pharynx, as the only localities where they may be seen at that stage.

The anæsthetic form is marked by all those phenomena which are the result of degenerative changes in the nerves. These are anæsthesia, paralysis, contractions and distortion, especially extreme flexion or extension of the fingers and toes, also ectropion, loss of smell and taste, wasting of muscles, vesicles, sloughing of fingers and toes, &c. The ulnar and facial nerves are especially frequently affected, but all are liable.

It is with difficulty that any history of a prodromic stage can be obtained from a native. They are by no means observant of such matters, but occasionally one may be found who will complain of a general indisposition extending over a period of several months or even longer.

When anæsthesia plays an important part from the first, the patients very frequently speak of formications, over the entire body sometimes, but especially over the nerves which afterwards become anæsthetic.



The following case was among the first that came to the office after my arrival. It is quite a typical case and as will be noticed combines the two forms :

CASE I. Lahela, female, aged 30, pure-blooded native; residence, Waihee, Maui. Lahela admits no history of any syphilitic cachexia. Can say nothing as to the health of her parents or what caused their deaths. She has a child 6 years old now affected with leprosy. (It was examined by us.) The child was quite sickly when a baby, but seems to be healthy, *generally*, now. L. first noticed the disease in herself two years ago, when she suffered much from chills and fever and general ill health; "she enjoys better health now."

Skin of face and lobes of her ears infiltrated and more or less hypertrophied: that of hands, arms and feet tuberculated and shows scars in abundance. Skin of left forearm and left hand anæsthetic, also little and ring fingers of the right hand, and ulnar side of right hand and forearm. The fingers of left hand are considerably distorted, the two terminal phalanges fixed, which first are slightly extended. Those of the right hand are also affected slightly in same way. Voice coarse, tubercles on posterior part of tongue and pharynx. Smell affected. She was vaccinated when young by a foreigner.

She was put upon one-tenth of a grain (gr. 1-10) of nitrate of silver three times daily, salt being interdicted. An additional note taken one month after first appearance reads: Anæsthesia apparently less, but pruritus of skin where eruption existed much greater than before—eruption desquamating; says she is "oluolu loa" much better; appetite improved and says she longs for salt food, which I am inclined to think she uses freely though positively prohibited.

Salt was positively prohibited, because in addition to the danger of neutralizing the effects of the nitrate of silver, it is thought to have a deleterious effect in itself upon the disease. The food of the native consists principally of "poi" (a thick paste made from the baked or powdered root of the tarum esculentum) and fish, either salt or fresh, and much salt meat. Some foreigners, not physicians I am careful to add, have a

prejudice against fish and much salt food, on the ground that leprosy is caused by such articles.

We were firmly convinced that great improvement had resulted from the treatment adopted in L.'s case. Unfortunately we lost sight of her, she being afraid we would inform the authorities and have her arrested and removed to Molokai. I heard afterwards she had been removed.

CASE II. Poupouka, female, aged 14, full-blooded native, residence, Waihee, Maui, came to the office August 27th, 1878. She gives no history of any syphilitic taint. Her mother has been affected as P. for the last three years. The man who brought P. is the father by P.'s mother of a now healthy boy two years old; the man himself gives no indication of the disease.

P. is rather deficient in intellect and can give no history of her case. Examination shows the skin of hands, arms, legs and feet tuberculated and infiltrated. Skin of face hypertrophied and shows two immense irregular black maculæ on each cheek; right hand and entire right forearm anæsthetic; little and index fingers and thumb of left hand anæsthetic; also back ulnar side of left forearm. She had been vaccinated six years ago.

The treatment instituted was similar to that in L.'s case, with the addition that she was to wash the diseased surfaces daily with carbolic tar soap and anoint the same with solution of iodide of sulphur in glycerine.

The points of note in this case are, 1st. The combination of the two forms; 2d. the partial or irregular affection of the nerves; 3d. P.'s mother, though a leper, was not sterile, leprosy according to some, causing sterility; this, however, is further contradicted by the fact that children have been born to leprous parents at the asylum itself; 4th. the maculæ are also of interest, but they occur associated with the disease otherwise well marked.

We were unable to take any notes upon the result of the treatment, for both Poupouka and Lahela were removed to



Molokai, about the middle of September. I might also add that P. and L. lived in the same house at Waihee.

CASE III. Keahi, male; aged 40; residence, Wailuku, Maui. He gives a history of buboes on two occasions, or as he expressed it "syphilis twice." Can't speak as to venereal or other diseases in his parents. Brother died with "sores on his body and lumps in his skin similar to patient's." Says he has been unwell about four years, but he first noticed these tubercles about half a year ago. His general appearance is that of a strong, healthy man. The skin of his face and lobes of his ears greatly infiltrated and hypertrophied. That of hands, forearms and legs hypertrophied, and excessively tuberculated, the same are covered with numerous scars—the seats of former tubercles that have ulcerated. Mucous membrane of mouth and pharynx thickened and tuberculated; voice coarse. Was vaccinated six years ago by a physician.

We note here the absence of anæsthesia; he gave no indication or evidence whatsoever of it. He remembers having had chancroids, but as is often the case everywhere, can't recall anything like chancre.

CASE IV. Kalepua, male, age 30, full-blooded native, came to the office with the left side of face swollen, painful and presenting all the characteristics of phlegmonous erysipelas, for which he was treated. It proved very obstinate, gradually becoming chronic with diminution of pain but not of the swollen condition. It finally improved somewhat under iodide of mercury internally and external applications of opium and acetate of lead; but he had been taking at different times tincture of the chloride of iron, iodide of potassium, etc., for upwards of a month. So unusual was the case that leprosy was not suspected. Prolonged observation however led to a belief that it existed, and subsequent phenomena one by one confirmed the diagnosis.

When a child he had an eruption upon his body which was probably secondary syphilis; since grown has had buboes; his mother died in child-birth; father still living but complains of "heaviness and weight" in his legs and feet.

The skin of the left side of the face and forehead was anæsthetic and expressionless, still thickened, evidently hypertrophied, there being no pain, heat, or redness. Muscles of left side of face paralysed, causing drawing of corners of mouth and face generally to right side, exactly as in hemiplegia. Paralysis of left orbicularis muscle causing dropping of lower eyelid (ectropion) and inability to move but slightly the upper lid. Tubercles upon pharynx and posterior part of tongue. Slight anæsthesia of two fingers (little and ring) of right hand. Was vaccinated 9 years ago by a foreigner, not a physician.

After leprosy was suspected he was put upon nitrate of silver, resulting in marked improvement in all his symptoms, especially the anæsthesia, that of his hand disappearing entirely.

This case was unique in its commencement, looking so like erysipelas and resisting every variety of treatment for over a month, then gradually settling into a chronic form, finally leprosy suspected. The diagnosis was gradually confirmed and improvement occurred under nitrate of silver.

The preceding four cases are from those collected by Dr. Enders and myself and probably illustrated the most permanent symptoms. They are, however, the histories of patients rather in the incipient stages, and the photographs which we had taken of the two first, would probably not show sufficient of the disease to warrant their publication.

Those which follow are the histories of lepers already at the asylum, and whose photographs were taken under the direction of the Legislative Sanitary Committee appointed by the last legislature to go to Kalawao and examine into the needs of the lepers.

The statements accompanying the photographs were not taken by us, but at Dr. Ender's request by Father Damien, resident catholic priest at Kalawao. Though not possessed of medical authority they will aid materially in explaining the photographs.

The following letter from the father is especially interesting :

KALAWAO, SEPT. 2, 1879.

DR. F. H. ENDERS :

DEAR SIR.—Your honorable note of the 25th July has been lately received. I have taken the statements desired concern







Case V. (Photograph 1.)



ing the lepers who were photographed in 1878. Two of them are gone, eight still live; each one's history shown in the blanks the best I could. A very few children are born here of leprous parents and most of those have died; there are a few now from four to six years old, and nearly the half of them already have signs of leprosy. May last, I received from Hong Kong, China, a new medicine for the amelioration of leprosy—"Hoàng Nân;" Those who take it and can abstain themselves from fish and pork feel a general amelioration. It is a beautiful tonic and should be introduced in this archipelago to keep down the spread of this disease.

My own health continues to be the same as before; perhaps I have the germs of leprosy in my system, I am not sure.

Very respectfully yours,

J. DAMIEN,

*Catholic Priest.*

CASE V. (Photograph 1.) Opu, female, age 38 years, native of Kauai. Parents dead, not certain of what disease. Opu, before she was married was paralyzed. In 1870 disease made its first appearance, was afterwards put in hospital in Honolulu, and from there sent to Kalawao. Her appetite is good but she is unable to move around much. Her face, hands and feet, covered with scars. Skin covered with dark dry cracking spots. Was vaccinated by a physician on Kauai, result a good scar; two years afterwards taken with a paralytic stroke in the legs. Since she was photographed the disease has made fearful progress.

The report of the Legislative Committee says:

Opu, woman, 49 years of age, and three years at the settlements, did not show much indication of leprosy on first arrival, but the symptoms of the disease developed very rapidly after her arrival at Kalawao. Neither of her parents nor any of her relatives had contracted the disease.

The photograph illustrates very finely the hypertrophied and infiltrated condition of the skin of face and lobes of ears. It is well to note also the absence of disease in her family, and

the fact that she became affected at least with a nervous disorder of an uncertain character, subsequent to having been vaccinated.

CASE VI. (Photograph 2.) Pilauī, female, age 41, native of Kauai. Father still alive, mother died in child-bed, both very healthy. Married in 1851; had three children. She says she caught the leprosy from another native in 1872 by living in same house. In 1874 had first appearance of leprosy with red spots upon the body. In the same year was sent to Molokai. Does not remember having had syphilis. Legs affected as hands and face, Skin of body dry and cracking. Eats well and is able to be about. Was vaccinated by two foreigners, one a physician, both times with good result.

Extract from legislative report.

Pilani, a woman, 33 years of age, and three and-a-half years at the settlement, says that her person showed very slight indications of leprosy when she came here, but since her stay, the disease has developed rapidly. She has a child, a boy, five years of age, now living at Waimea, Kauai, not a leper and in the enjoyment of good health.

The photograph shows the tubercles scattered in the hypertrophied skin of the face. The ugly looking ulcers on her hands are well shown.

CASE VII. (Photograph 3.) Kahuna, male, 45 years old, of Honolulu, four years at Molokai; being deaf, can not find out his history; he had syphilis when young; is deaf, has sore eyes, and asthma.

The committee report says:

Kahuna, 40 years of age, two and-a-half years at Kalawao. His body indicating peculiar leprosy blotches and marks, and notable swellings in the groins was photographed as No. 3, but owing to a defect in the focus the blotches do not appear.

CASE VIII. (Photograph 4.) Kaluhi, age 15, male, of South Koua, Hawaii.

His mother is an old leper; never saw his father. Was

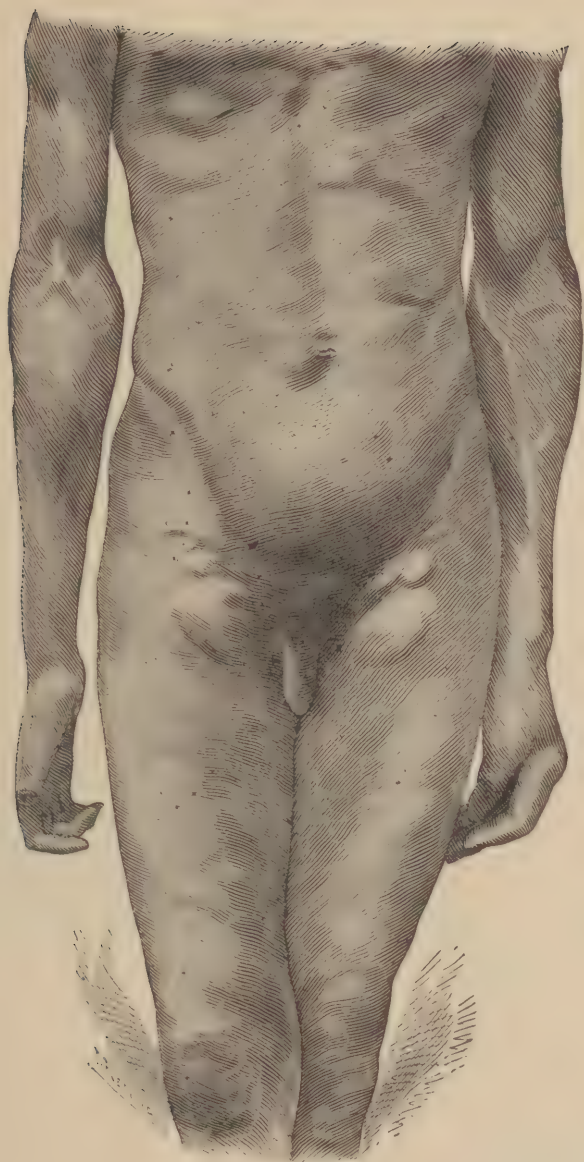




Case VI. (Photograph 2.)







Case VII. (Photograph 3 )







Case VIII. (Photograph 4.)









Case IX. (Photograph 5.)







Case IX. (Photograph 6.)





Case X. (Photograph 7.)



brought up by a guardian. Leprosy appeared in him at the age of 5 or 6 years—he is now four years at the settlements. Is strong and has good appetite. General appearance same as in photograph. Respiration as an asthmatic. Vaccinated twice when very young. Apparently a case of inherited leprosy, and in this connection, I copy from the legislative report the following:

It is stated by Dr. Hoffman, who for some time had charge of the leper patients in Honolulu, that in no instance had he seen any symptoms of leprosy manifested earlier than five years of age. Thus it may be that leprosy, like syphilis requires a certain degree of growth before it begins to make manifest its ravages upon the system. It makes it thus a sad reflection, that perhaps the twenty-eight healthy looking children of the leper settlement at Kalawao are, after all, only doomed lepers.

CASE IX. (Photograph 5 and 6.) Kalamau, female, 60 years old. Mother died of leprosy—father died of nervous shakes. Kalamau enjoyed good health after marriage. She had two children. She was infected with syphilis in 1845, by her husband. She used native medicine which dried up the sores. In 1852 leprosy broke out in red spots all over her body. In 1856 commenced to lose fingers and toes. Still able to get about. Now both feet half gone, hands have no fingers, almost blind, mouth on one side, eyes always open, flesh wasted away, skin dry. Was vaccinated after contracting leprosy.

The report says:

Kalamau, a woman, 50 years of age, from Honolulu, and at Kalawao five years; a poor, helpless creature, whose palsied and fingerless hands had to be held to enable the photographer to take an impression—No. 6. The feet of this case without toes—all destroyed by the erosions of leprosy.

CASE X. (Photograph 7.) No history by Father Damien, Nuluaai being dead. Committee report says: Nuluaai, male, 56 years old; at Kalawao five years.

CASE XI. (Photographs 8 and 9.) David Ostrom, a white man, age 60 years. Father and mother Americans, both healthy. He contracted this disease on the Island of Maui; had had syphilis in 1850 in New York. In 1871, first felt tenderness in bottom of feet. In 1872 first noticed yellow spots on breast; made their appearance after the use of cold water. Body covered with salmon-colored spots; hands and feet insensible to feeling; skin dry and shrivelled. Good appetite and able to be about. Vaccinated without effect in the States.

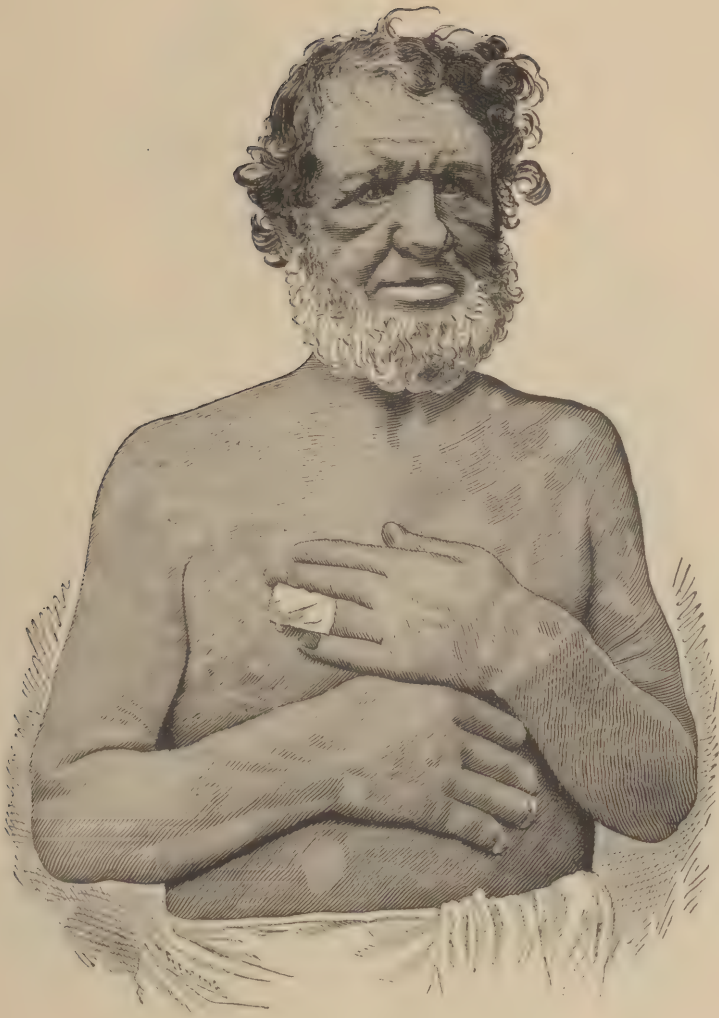
Committee report says:

Tom Ostrom, a native of the State of New York, American, 55 years of age, 3 years and six months at the settlement. No symptoms of the disease until about six months before coming here. Went himself to be examined by Dr. Enders and, when satisfied he had the disease, voluntarily came to the settlement. He feels satisfied his case is incurable. Would be willing to surrender his body to be vivisected, if necessary for the benefit of medical science. Wants to die. His feelings are terrible. Voluntarily offered his person to be photographed. His case is a marked illustration of leprosy. Large swellings in groins, which often suppurate. According to outside information, he was an assistant for some years in the hospital at Lahaina. He took some leper patients to live with him, in order to treat them for cure, and the disease appeared after this association. Photograph 8 represents a front view of Ostrom; photograph 9, a back view.

CASE XII. (Photograph 10.) No history by Father Damien, Kaapu being dead.

Committee report says:

Kaapu, a man from Waimaualo, the witness who testified to the digging of the graves. That testimony is—Kaapu, 32 years of age, and nine years at the settlement, says that he has been obliged to dig graves ever since he has come here. His hands are in a very bad condition. Has lost several joints of his fingers, and all are in an excoriated and suppura-



Case XI. (Photograph 8.)







Case XI. (Photograph 9.)





Case XII. (Photograph 10.)









Case XIII. (Photograph 11.)







Case XIV. (Photograph 12.)

ting condition. He is one of seven children and neither of his parents, nor any of his brothers or sisters have contracted the disease.

CASE XIII. (Photograph 11.) Eph. Kanoe, male, aged 30, native of Hawaii. His father is now seventy years old, and strong; his mother, 46 years of age; she is supposed to have had syphilis; she had nine children, Eph. being the oldest. When young he had sores upon his body. At 16 or 18 he had syphilis (buboes are meant probably). In 1871 he had for several months discharge of bloody excrement—(dysentery), and had a red spot on his right arm which was anæsthetic. In 1873 all the arm was red. In 1874 this was cold and hot by turns. Soon covered with bad sores. In 1876 redness appeared on his face; at the end of same year all his body was black colored, and in 1877 he was sent to Kalawao. His present condition is the same as when photographed, a little weaker, but he continues to move about. Whole skin leper-colored, but clean. Vaccinated in 1853 by a physician.

Committee report contains following:

“ Kanoe Eparaima, a man, 30 years of age, and about two years at Kalawao. A case to illustrate the loss of the eyebrows as one of the effects of leprosy.”

CASE XIV. (Photograph 12). Wm. Crouningberg, aged 46, male, nativity Lahaina; mother Hawaiian, father American, both were healthy. C. healthy from youth up. In 1869 had an anæsthetic spot on right foot. In 1873 one appeared upon face. Went to Honolulu for examination. In 1874 sent to Kalawao. He is covered with salmon-colored spots. Hands affected, fingers off one hand. Skin dry, shrivelled, cracking. Vaccinated a very long time before leprosy appeared. During 4 months used Hoâng Nân pills with wonderful effect for amelioration. Looks somewhat different from his appearance when his photograph was taken; now covered with scales, longest finger of right hand gone, both hands sore.

The above cases I hope will prove of interest to such of the profession as are giving some attention to this rapidly increasing

disease. They are necessarily more meagre than I could wish to have them, but even those whose histories were taken by a non-professional gentleman, illustrate many of the most interesting symptoms of leprosy, and every little helps to swell the total amount of knowledge possessed of a disease.

It will be noted that syphilis or any syphilitic cachexiae were in every case diligently sought for, for there are some on these islands, as well as in India and elsewhere, who hold to an intimate connection between syphilis and leprosy. If there is any such relation as they claim, then is it unnecessary to speculate as to the manner of introduction of leprosy into this kingdom, for though my experience in foreign lands is confined to these Islands, I am not prepared to read of a country where syphilis is so prevalent, so grounded into the whole native population as here. The problem, then, would be, how long the disease—syphilis—left to itself, would require to become elaborated into leprosy. But I am not willing yet to adopt such an hypothesis, for then should leprosy be more general in the families of those affected, as well as more common in other countries, where there is a certain proportion of families thoroughly imbued with syphilis, and from which they have not been exempt for several generations. Again, anti-syphilitic treatment should give some good results, which is not the case, save when syphilis is added to the disease. Moreover, the symptoms of the two diseases do not coincide in a way to warrant such an opinion.

Vaccination was also inquired into. Alarmed by an invasion of small-pox in 1853, a general vaccination of the whole population was ordered, and physicians being at that time very few on the islands, non-professionals aided in the work. It is charged by some that, as a natural result of the labors of the heterogeneous force so appointed, not only syphilis but also leprosy was greatly increased. In my last circuit trip in my district, I found very few adults who had never been vaccinated.

This involves the question of inoculability, in my opinion the main, if not the only means of propagation, other than inheritance. That is, like syphilis it depends for its propagation



upon the direct introduction of its virus into the blood. The general immunity of those coming in constant contact with lepers points to the absence of any direct contagious quality. These statements are illustrated in the cases given above, and it is not necessary to lengthen this paper by explaining them. I will only quote the following from the committee report, as one of many instances of similar nature coming under my knowledge :

“ The committee observed in a hut a leprous woman, named Makahiki, who presented all the appearances of a badly diseased incurable case, and yet had her fine, healthy child, living with her, a bright looking little boy, about 2 years of age. Her husband, Kioni Kahiapo, a healthy, intelligent looking man, with no appearance of any taint of leprosy about his person.” “ Had been with her in settlement about five years, and would remain with her as long as she had breath.”

The duration of life is on an average within a decade of the undoubted establishment of the disease. With more strict hygienic measures than seem possible at Kalawao, this might be increased materially. The disease in itself would probably be long in producing death, but it causes a vitiated condition of the system favorable to pulmonary, hepatic and intestinal troubles which prove rapidly fatal.

Treatment has been directed to only two points: 1, prevention of spread, and 2, palliative treatment, including the relief of intercurrent troubles. In fulfillment of the first indication, the government has set apart a very favored quarter on Molokai. It is open to the trade winds on one side, and on the others is shut off from the rest of the island by almost impregnable mountains. To this place the lepers are carried and supported by legislative appropriations; and here also is a hospital where the helpless are provided for. Under the second indication, such as was possible has been done at the settlement itself.

As directed against the disease itself, I hope nitrate of silver will be more thoroughly tried. It certainly gave some good results in several cases under Dr. Enders' supervision, so far as the affection of the nerves was concerned—a result intelli-



ble in the light of its alterative affects upon the nerves. Unfortunately it is impossible to keep a patient under observation sufficiently long to carry out a line of treatment thoroughly.

Charelmoogra oil has been used in India with good results, so it is claimed. We lately received from a prominent druggist in New York a sample, but have not yet been able to report any cases under its use.

LAHAINA, MAUI, HAWAIIAN ISLANDS,  
December 15, 1879.





